VZ LINK MAGAZINE

ISSUE 53 MARCH 1991

ODDS AND ENDS

Well I did promise that this issue of your VZ newsletter would be finished before the club meeting. In fact 12 hours before is not bad.
Some of you never received last months issue for some reason, if you are one of them please ring and tell me.
I am sorry about the delay, but I am still very busy at work.

If you want to contact me about any problems the phone number is now: Ph. **520-6743**
I now have the answer phone connected so you can ring any time and leave a message, I will ring you back.

The idea of core group meetings on a more regular basis seems well received.
The only complaint was the name, I will call them activity evenings, OK.

The idea is that I will make myself available at home and you can just arrive for a cup of coffee and a yarn. Or swap software and sort out programs etc etc.
There is no compulsion to turn up.

If you are interested in this idea please ring me for the address.
The first such evening will be on the following date :

TUESDAY 09 APRIL 1991
starting at 7.00 PM

FOR SALE

I have some short cassette tapes and also second hand computer disks available for $1.00 each. All proceeds to the club and money back if not happy. Contact me if you are interested.

QUIRK

Please be aware that there is a problem with Disk formatting when you have the new DOS Eprom. If you are using this Eprom and save programs for other people on their disks which are formatted using the old Eprom. Then they take them home they will get a I/O error message. The answer is to format the disk with the New Eprom init command first and then save the program.
Then either machine will read the disk. Confused ?? then ask and I will explain.

See you next issue.

P.O BOX 1972 C.P.O AUCKLAND N.Z
AUCKLAND VZ 300/200 COMPUTER USERS CLUB (1986)
NEW ZEALAND VZ 300/200 COMPUTER USERS CLUB (1989)

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YOU ARE WELCOME TO PHONE ME ON.....PHONE 520-6743

GLADIATOR

Ken Clarke

TWO WEAPON WIELDING FIGURES STEP OUT INTO THE SUNLIGHT. THE CROWD ROARS AS BATTLE COMMENCES. BLOOD STAINED ACTION FOR THE VZ'.

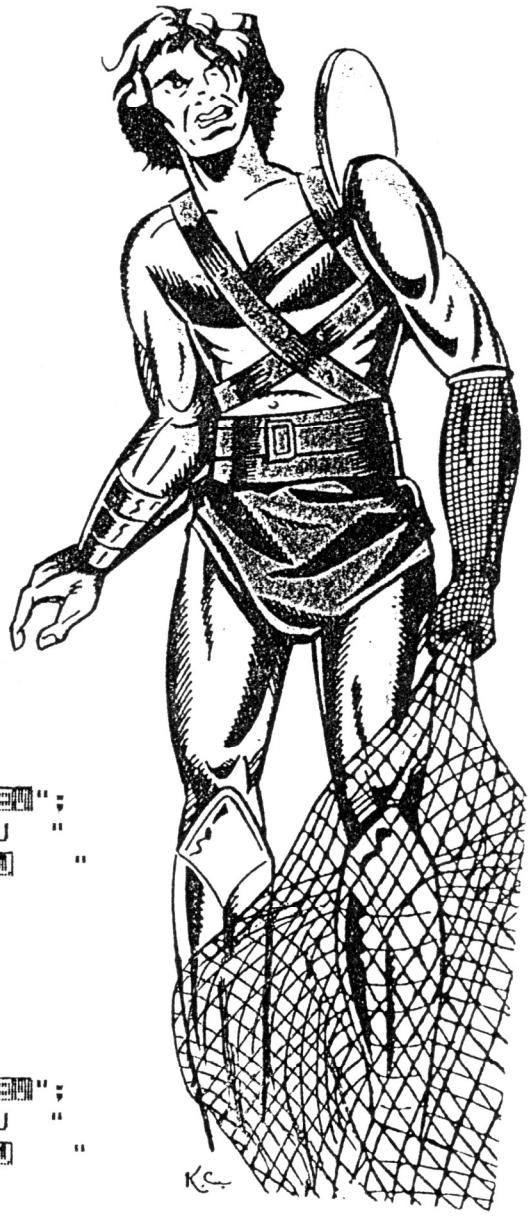
Gladiators takes you back to those blood stained days of ancient Rome when everyone's idea of a good time was to go and watch two warriors slash and hack bits off each other! These days, we only do it on the video screens!

You can either fight it out against the computer controlled oponent or take on a friend in mortal combat.

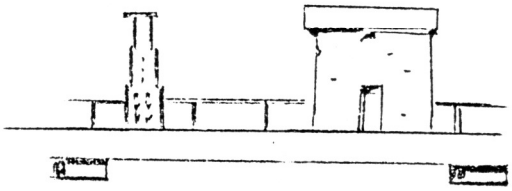
To move Gladiator 'K' use keys Z and X.
To move Gladiator 'C' use keys N and M.
Or use Left and Right Joysticks.

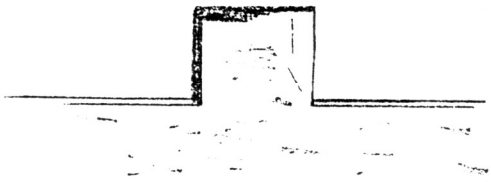
```
10 REM"SET ALL VALUES
20 CLEAR500:COLOR2,0:GOSUB620:GOTO1200
30 Z=20:Y=6:V=0:W=0
40 COLOR,1:POKE30771,1
50 REM"GLADIATORS  BY KEN CLARKE  1980
60 REM"SCREEN SETUP
70 PRINT@0,"                                        ";   Z13Y4Z13YZ
80 FORN=1TO14
90 PRINT" ▌                                    ▌";      U30sI
100 NEXT
110 PRINT" ▌                                    ▌";      sZ12T4Z12TZs
120 PRINT@449," KEYS:(Z)-(X)  ▌  KEYS:(N)-(M)"
130 PRINT@47," ▌ ":PRINT@79," ▌ "                        UI......UI
140 PRINT@36,"PLAYER 1":PRINT@52,"PLAYER 2"
150 PRINT@68,"HITS= "V:PRINT@84,"HITS= "W
160 PRINT@416,"                                        ";  Z13Y4Z13YZ
170 PRINT@96,"▌   ▄▄▄▄▄▄▄▄GLADIATORS▄▄▄▄▄▄▄   ▌"          I2s2T7Z...5Z2T2sU
180 PRINT@128," ▌▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▄▌ "       UT7Z14Y7ZTI
190 PRINT@160,"▄▄▄▄▄▄▄▄▄▄                  ▄▄▄▄▄▄▄▄▄▄"     8Z16s8Z
200 PRINT@192,"▌▄▄▄                          ▄▄▄▄▌"       Z3Y24s3YZ
210 REM"START OF GAME
220 FORI=1TO8
230 PRINT@(5+I)*32+Y,A$(I);TAB(Z);B$(I)
240 NEXTI:REM"MOVEMENT
250 J=(INP(43)AND31):K=(INP(46)AND31)
260 Z=Z-(INKEY$="M")+(INKEY$="N")
270 Y=Y+(INKEY$="Z")-(INKEY$="X")
280 IFK=23,Z=Z+1ELSEIFK=27,Z=Z-1
290 IFJ=27,Y=Y-1ELSEIFJ=23,Y=Y+1
300 REM"MOVEMENT OREOK
310 IFY<1,Y=1
320 IFY>19,Y=19
330 IFY=Z-6,GOSUB370
340 IFZ<1,Z=1
350 IFZ>24,Z=24
360 GOTO220:REM"AUTOOK START
370 FORI=1TO8
380 PRINT@(5+I)*32+Y,C$(I);TAB(Z);D$(I)
390 NEXTI:REM"SEE OPTION
400 L=RND(100):IFL>50,V=V+1:ELSEW=W+1
410 POKE28747,V+112:POKE28763,W+112
420 IFV=9,440ELSEIFW=9,530
430 GOTO250:REM"PLAYER 2 DIES
440 FORI=1TO8
450 PRINT@(5+I)*32+Y,H$(I);TAB(Z);E$(I)
460 NEXTI
470 PRINT@483,"PRESS SPACE TO CONTINUE";
480 PRINT@450,"  PLAYER 1 HAS KILLED YOU  "
490 PRINT@450,"  PLAYER 1 HAS KILLED YOU  "
500 J=(INP(32)AND31):IFJ=15,30
510 IFINKEY$<>" ",480
520 GOTO30:REM"PLAYER 1 DIES
530 FORI=1TO8
540 PRINT@(5+I)*32+Y,F$(I);TAB(Z);G$(I)
550 NEXTI
560 PRINT@483,"PRESS SPACE TO CONTINUE";
570 PRINT@450,"  PLAYER 2 HAS KILLED YOU  "
580 PRINT@450,"  PLAYER 2 HAS KILLED YOU  "
590 J=(INP(32)AND31):IFJ=15,30
600 IFINKEY$<>" ",570
610 GOTO30
```

- GRAPHIC CODES. -

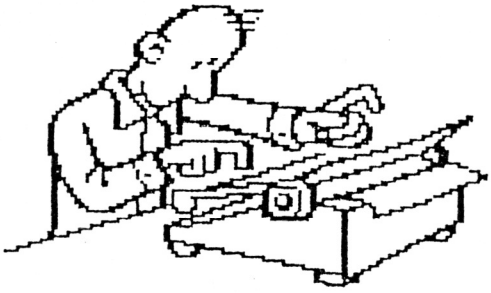


```
620 A$(1)="  ▗   "                sQ3s
630 A$(2)="  ▌   "                sU3s
640 A$(3)=" ▟▖   "                sFW2s
650 A$(4)=" ▝▜▗  "                sGQWs
660 A$(5)="▗▟▛▘▗ "                sHFRW
670 A$(6)="  ▟▛  "                2s[K]Ys
680 A$(7)="  ▜▛  "                2sASs
690 A$(8)="▛▘ ▝▜ "                sARER
700 B$(1)="     ▗ "               4sWs
710 B$(2)="     ▌ "               4sIs
720 B$(3)="    ▟▖ "               3sQDs
730 B$(4)="   ▗▜▝ "               2sQWHs
740 B$(5)=" ▗▛▟▖  "               sQEDGs
750 B$(6)="  ▟▛   "               2sY[C]2s
760 B$(7)="  ▜▛   "               2sAS2s
770 B$(8)="▛▘ ▝▜  "               sERESs
780 C$(4)="   ▗   "               2sQW2s
790 C$(5)="▗▟▛▘▗  "               sTFRWs
800 C$(6)="▛▘▟▛▜▛ "               sRZYAY
810 C$(7)="▜▛ ▝▜  "               sAS3s
820 C$(8)="▛▘ ▗   "
830 D$(1)="       "
840 D$(2)="       "
850 D$(3)="       "
860 D$(4)="   ▗   "
870 D$(5)="  ▗▛▖  "
880 D$(6)="▟▛▜▛▗  "
890 D$(7)="  ▜▛   "
900 D$(8)="  ▗▛▗  "
910 REM"[illegible]
920 E$(4)="▗▛     "
930 E$(5)="▛▜     "
940 E$(6)="▜▛     "
950 E$(7)="  ▜▛   "
960 E$(8)="  ▗▛   "
970 F$(4)="    ▗▛ "
980 F$(5)="   ▛▜  "
990 F$(6)="   ▜▛  "
1000 F$(7)="   ▜▛ "
1010 F$(8)="   ▗▛ "
1020 REM"[illegible]
1030 G$(1)="     ▗ "
1040 G$(2)="     ▌ "
1050 G$(3)="   ▗▛▝ "
1060 G$(4)="  ▗▜▗▌ "
1070 G$(5)="  ▟▛▝  "
1080 G$(6)="  ▟▛▗  "
1090 G$(7)="  ▜▛▌  "
1100 G$(8)="  ▗▛▗  "
1110 H$(1)="▗▌    "               sI4s
1120 H$(2)="▗▌    "               sI4s
1130 H$(3)="▛▘▗   "               EAsW2s
1140 H$(4)="▗▜▗   "               sI["U2s
1150 H$(5)="  ▟▛  "               sE[R2s
1160 H$(6)="  ▟▛  "               sQZW2s
1170 H$(7)="  ▗▌  "               sUsI2s
1180 H$(8)="  ▗▜  "               sEsY2s
1190 RETURN
1200 FORN=1TO14:PRINT:NEXTN
1210 PRINT@0,"[illegible]";       2Z28Y2Z
1220 PRINT@32,"[illegible]";      2Z28s2Z
1230 FORN=1TO12
1240 PRINT"[illegible]";          Z30sZ
1250 NEXTN
```





```
1260 PRINT@448,"[redacted]";   2Z28s2Z
1270 PRINT@480," [redacted]";   sZ28TZ
1280 PRINT@42,"*[redacted]*":PRINT@106,"*[redacted]*"
1290 PRINT@162,"THIS IS A GRAPHICAL GAME OF"
1300 PRINT@199,"COMBAT BETWEEN TWO"
1310 PRINT@225,"GLADIATORS IT CAN BE PLAYED IN"
1320 PRINT@263,"TWO DIFFERENT WAYS"
1330 PRINT@289,"EITHER 1> YOU AGAINST A FRIEND"
1340 PRINT@321,"OR 2> YOU AGAINST THE COMPUTER "
1350 PRINT@352,"YOU CAN CHANGE SIDES AT ANY TIME";
1360 PRINT"TO MOVE GLADIATOR 'K' KEYS <Z-X>";
1370 PRINT"TO MOVE GLADIATOR 'C' KEYS <N-M>";
1380 PRINT@458,"OR JOYSTICKS"
1390 PRINT@483,"[redacted]";
1400 IFINKEY$<>" ",GOTO1390
1410 GOTO30
```



Potpourri

by

Ken Clarke.

I fired-up a VZ-200 the other day - that's the VZ with the squishy, rubber keys, that send shudders up your spine because they feel like dead flesh! Well it's not really that bad. But this particular keyboard had caught a very bad dose of "STUTTERITUS". Certain keys STUTTERED and it made my typing look "DDDAM SSSSILLLY"! The cure involves carefully opening the case. [Take great care not to bend the lead that goes to the keyboard too much, especially where it joins the computer board.] Open the keyboard [AND DON'T LOSE ANY OF THE 13 SCREWS. or it WILL be BAD LUCK!] Here you will see the conductive rubberised key buttons and the plated contacts. Both surfaces need to be cleaned - in particular, the keys that were STUTTERING. AVOID using Alcohol or any other liquid Solvent as this will only end up making your problem worse. A Solvent usually dissolves a little varnish and leaves a smear or film on the contacts. The SECRET to avoid this is to BURNISH both surfaces with a very, very soft PENCIL RUBBER. Nothing else. DUST-OFF every speck of dust and rubber particle [be most scrupulous doing this as cleanliness here is absolutely essential. Re-assemble and SEAL the SCREWS with a tiny spot of nail varnish. [This is so they can't vibrate loose and do serious damage if one should fall into the works] If you are not sure of doing this job yourself, or would like help or would like to be shown how to do it - then contact Peter so arrangements can be made.....

PART 4

```
1175 LET M=N:PRINT@330,"SKILL:";S
1178 LET T=M+S:PRINT@362,"ATTACK STRENGTH:";T
1180 IF T<RTHEN PRINT@119,"WINNER":X=X-2
1181 IFT<RTHENSOUND2,3:GOTO1200
1182 IF T>RTHEN PRINT@282,"WINNER":Z=Z-2
1183 IFT>RTHENSOUND30,3:GOTO1200
1184 IF T=RTHEN PRINT@119,"DRAW  ":PRINT@282,"DRAW  "
1185 IFT=RTHENSOUND15,3
1200 PRINT@236,"STAMINA = ";Z:PRINT@396,"STAMINA =";X
1202 IFX<1THEN1500
1204 IFZ<1THEN1600
1210 PRINT@419,"HIT RETURN TO FIGHT AGAIN";
1220 INPUTT$:GOTO1110
1500 REM **FAILURE**
1510 PRINT@419,"YOU HAVE LOST...YOU ARE DEAD":GOSUB54000
1520 PRINT@449,"HIT RETURN TO CONTINUE";:INPUTT$:GOSUB15723:CLS
1530 PRINT@130,TAIL$:GOSUB50000:POKE30744,0:LETI$=LEFT$(I$,1)
1540 IFI$="Y"THENPRINT"OK, HIT RETURN AND GOOD LUCK!";:INPUTT$
1550 IFI$="Y"THENCLS:RUN
1560 PRINT"VERY WELL, THANKS FOR PLAYING."
1570 FORI=1TO1000:NEXT:CLS:END
1600 REM **VICTORY**
1610 PRINT@419,"WELL DONE, YOU'VE WON!!!":GOSUB52000
1620 PRINT@451,"HIT RETURN TO CARRY ON...";
1630 INPUTT$
1645 CLS
1646 PRINT@165,"YOUR STAMINA NOW STAND"
1647 PRINT@229,"        AT:";X
1648 PRINT@418,"HIT RETURN";:INPUTT$
1650 RETURN
2000 REM ***INITAL VALUATION***
2003 GOSUB990:COLOR,0:RESTORE
2005 PRINT"CHOOSE NOW ";NAME$;", WHICH"
2010 PRINT"LEVEL WILL YOU TRY?"
2020 PRINT:PRINT"   A) BEGINNER"
2030 PRINT"   B) APPRENTICE FIGHTER"
2040 PRINT"   C) SEASONED FIGHTER"
2050 PRINT"   D) PROFESSIONAL WARRIOR"
2060 GOSUB50000
2070 IFI$="A"THENX=30:Y=0:XXX=30:GOTO2110
2080 IFI$="B"THENX=20:Y=1:XXX=20:GOTO2110
2090 IFI$="C"THENX=15:Y=2:XXX=15:GOTO2110
2100 IFI$="D"THENX=10:Y=3:XXX=10:GOTO2110
2106 GOSUB999:GOTO2060
2110 S=10:POTION=1:MEALS=3:WW=0:RETURN
2500 FORI=1TO100:NEXTI:GOSUB15604
2505 IFDRAG=1THENRETURNELSEPRINT"YOUR ENEMY LIES DEAD!"
2510 PRINT"YOU REST A LITTLE, THEN GO ON."
2520 RETURN
3000 REM *****GRAPHIC TITLE*****
3010 COLOR5,1
3020 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT
3030 PRINT"    MAZE OF DOOM!!!"
3072 PRINT:PRINT"    BY STEVE DALE"
3100 SOUND16,3:SOUND11,1:SOUND11,1:SOUND16,3:SOUND11,2:SOUND16,5
3110 SOUND16,5:SOUND24,5:RETURN
4000 REM ****INTRUCTIONS****
4001 CLS:PRINT:PRINT"WHAT IS YOUR NAME";:INPUTNAME$
4010 CLS:PRINT@32,"DO YOU WANT INSTRUCTIONS?":COLOR,0
4012 GOSUB50000:IFI$="N"THENCLS:RETURN
4013 CLS:PRINT"RIGHT,";NAME$;", HERE ARE YOUR"
4014 PRINT"    I N S T R U C T I O N S!"
4020 PRINT"THE KING OF SARDON, A LITTLE"
```

```
4030 PRINT"COUNTRY IN THE MIDDLE OF "
4040 PRINT"MIDIEVAL EUROPE, HAS A LOVELY"
4050 PRINT"DAUGHTER.   ONE DAY, HE CALLS"
4060 PRINT"ALL HIS KNIGHTS TOGETHER AND "
4070 PRINT"TELLS THEM THAT THE PRINCESS"
4080 PRINT"HAS BEEN KIDNAPPED BY THE EVIL"
4090 PRINT"WARLOCK, MARNON MIRE!! "
4100 PRINT"YOU "NAME$;", HAVE VOLUTEERED,"
4110 PRINT"BUT THEN THE KING SAYS, 'SHE "
4120 PRINT"IS BEING HELD IN THE MAZE OF"
4130 PRINT"TAROC!!  <<SPACE>> TO CONTINUE":GOSUB50000:CLS
4140 PRINT"YOU BLOOD RUNS COLD!  THE MAZE "
4150 PRINT"OF TAROC IS A TERRIBLE PLACE."
4160 PRINT"AND ONE MAY EASILY GET LOST!"
4164 PRINT"NOT ONLY THAT, BUT YOU HAVE"
4166 PRINT"HEARD TALES OF MONSTERS AND "
4167 PRINT"GREAT EVIL THERE!"
4170 PRINT"BUT YOU HAVE VOLUNTEERED, AND"
4180 PRINT"YOU MUST GO ON!"
4195 GOSUB2000
4200 GOSUB50000:CLS:PRINT"YOU ARE ONLY ABLE TO TAKE A "
4210 PRINT"SWORD, SHEILD, AND THREE MEALS"
4220 PRINT"WITH YOU."
4241 PRINT"TO GO IN ANY DIRECTION, TYPE IN"
4242 PRINT"N,S,E OR W.  IF YOU WANT TO "
4243 PRINT"KNOW ANYTHING ELSE, TYPE IN A"
4244 PRINT"KEY WORD. I CAN UNDERSTAND "
4245 PRINT"THE FIRST FOUR LETTERS OF SOME"
4246 PRINT"WORDS LIKE 'INVENTORY','HELP',"
4247 PRINT"ETC. TO EAT, TYPE IN 'MEAL'."
4250 PRINT"<<SPACE>>TO GO ON)":GOSUB50000:CLS
4260 PRINT"THEN YOU GO TO SEE THE CITY'S"
4270 PRINT"WIZZARD, MORTOK. HE TELLS YOU,"
4280 PRINT"ALTHOUGH YOU MAY SEEM TOTALLY"
4290 PRINT"UNARMED, HE WILL GIVE YOU A  "
4300 PRINT"WEAPON THAT ONLY YOU CAN WEILD!"
4310 PRINT"WHEN YOU ASK HIM WHAT THIS "
4320 PRINT"WEAPON IS, HE TELLS YOU THAT"
4330 PRINT"IT CAN ONLY BE FOUND DEEP IN "
4340 PRINT"THE MAZE!  HE THEN GIVES YOU A"
4342 PRINT"LITTLE BOTTLE. IT IS A HEALING"
4344 PRINT"POTION.  IT WILL RESTORE YOUR"
4346 PRINT"STRENGTH TO ITS INITIAL LEVEL."
4347 PRINT"TO USE IT, TYPE IN 'POTION'"
4349 PRINT"<SPACE>":GOSUB50000:CLS
4350 PRINT"YOU TAKE YOUR SWORD AND SHEILD"
4370 PRINT"AND MAKE YOUR WAY TO THE TOWN "
4380 PRINT"GATES.    THE TOWNSFOLK ARE"
4390 PRINT"CHEERING YOU ON.  BUT YOU ARE"
4400 PRINT"A LITTLE SCARED!  <<SPACE>>":GOSUB50000:CLS
4410 PRINT"THE PEOPLE SEE YOU OFF AT THE "
4420 PRINT"GATES AND YOU WALK INTO THE"
4430 PRINT"WILDERNESS SURROUNDINGS."
4440 PRINT"IT IS NOT A LONG TRECK, BUT"
4450 PRINT"YOU ARE FEELING QUITE TIRED AS"
4460 PRINT"THE MAZE ENTRANCE APPEARS IN"
4470 PRINT"THE DISTANCE.   "
4480 PRINT"YOU HAVE";X;"STAMINA POINTS, "
4490 PRINT"10 SKILL POINTS, THE BOTTLE OF"
4495 PRINT"POTION, AS WELL AS YOUR"
4500 PRINT"WEAPONS, PLUS THAT STRANGE,"
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```
4510 PRINT"UNKNOWN ONE THAT THE WIZZARD"
4520 PRINT"SPOKE OF.   WONDERING WHAT IT"
4530 PRINT"COULD BE, YOU NEAR THE "
4540 PRINT"ENTRANCE TO THE"
4550 PRINTTAB(6)"MAZE OF TAROC!!";:SOUND15,5:PRINT"<<SPACE>>"
4560 GOSUB50000:CLS:GOTO200
5000 REM ***MAIN DECISION***
5010 INPUTL$
5020 D$=LEFT$(L$,4)
5022 IFD$="NORT"THEND$="N":RETURN
5023 IFD$="SOUT"THEND$="S":RETURN
5024 IFD$="WEST"THEND$="W":RETURN
5025 IFD$="EAST"THEND$="E":RETURN
5030 IFD$="HELP"THENGOSUB15000:GOTO5010
5040 IFD$="WEAP"THENGOSUB15100:GOTO5000
5050 IFD$="INVE"THENGOSUB15050:GOTO5000
5070 IFD$="MEAL"THENGOSUB55000:GOTO5000
5080 IFD$="DOOM"THENGOTO5500
5082 IFD$="POTI"THEN5300
5085 IFD$="N"ORD$="S"ORD$="E"ORD$="W"THENRETURN
5086 IFD$="NE"ORD$="NW"ORD$="SE"ORD$="SW"THENRETURN
5087 IFD$=""THENRETURN
5088 IFD$="D"ORD$="R"THENRETURN
5090 GOSUB999:GOTO5000
5200 RETURN
5300 IFPOTION=0THENPRINT"YOU HAVE NO POTION LEFT!":GOTO5000
5301 PRINT"YOU SWALLOW THE POTION, AND "
5302 PRINT"SUDDENLY, YOU FEEL YOUR "
5304 PRINT"STRENGTH RESTORED!  YOUR":POTION=0
5306 PRINT"STAMINA IS BACK TO ITS INITIAL"
5308 PRINT"LEVEL OF";XXX:X=XXX:GOTO5000
5500 IFWIZ=1THEN15600
5505 IFWW=0THENPRINT"THAT WORD HAS NO MEANING HERE.":RETURN
5510 IFWW=1THENGOTO15100
5520 IFWW=2THENRETURN
5999 RETURN
10000 REM *****FRAME*****
10090 RETURN
10100 REM ***DICE PRINTOUT*****
10113 PRINT@A-32,"DICE PRINTOUT"
10115 IF B=1THENA=A+4
10116 IF B=2 RETURN
10117 COLOR5
10120 PRINT@A,"   "
10130 PRINT@A+32,"   "
10140 PRINT@A+64,"   "
10145 GOSUB10170
10150 B=B+1
10160 GOTO10115
10170 REM CHOICE
10180 C=RND(6)
10190 PRINT@A+97,C;
10200 IF C=1PRINT@A+33,"*";
10220 IF C=2PRINT@A,"*";:PRINT@A+66,"*";
10230 IF C=3PRINT@A,"*";:PRINT@A+33,"*";:PRINT@A+66,"*";
10250 IFC=4PRINT@A,"* *";:PRINT@A+64,"* *";
10270 IFC=5PRINT@A,"* *";:PRINT@A+33,"*";:PRINT@A+64,"* *";
10290 IFC=6PRINT@A,"* *";:PRINT@A+32,"* *";:PRINT@A+64,"* *";
10292 IFB=0THENN=C
```

PART 5 NEXT ISSUE

PUZZLE

THE INSTRUCTIONS FOR THIS GAME ARE CONTAINED WITHIN THE PROGRAM

```
5 REM PUZZLE
10 REM BY JOHN HOPE
15 GOTO900
20 CLS:E=28910
30 COLOR3
40 PRINT@68,"▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒" 'SHIFT + J'
50 PRINT@100,"▒ X ▒ W ▒ V ▒ U ▒ T ▒"
60 PRINT@132,"▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒"
70 PRINT@164,"▒ S ▒ R ▒ Q ▒ P ▒ O ▒"
80 PRINT@196,"▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒"
90 PRINT@228,"▒ N ▒ M ▒   ▒ L ▒ K ▒"
110 PRINT@260,"▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒"
120 PRINT@292,"▒ J ▒ I ▒ H ▒ G ▒ F ▒"
130 PRINT@324,"▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒"
140 PRINT@356,"▒ E ▒ D ▒ C ▒ B ▒ A ▒"
150 PRINT@388,"▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒"
160 PRINT@38,"1   2   3   4   5"
170 PRINT@99,"1":PRINT@163,"2":PRINT@227,"3"
180 PRINT@291,"4":PRINT@355,"5"
190 PRINT@452,"NUMBER OF MOVES";I
200 PRINT@418,"ABCDEFGHIJKL MNOPQRSTUVWX"
500 REM ACROSS POSITION
510 PRINT@2,"ENTER ACROSS POSITION";:INPUTA
515 PRINT@2,"                              "
520 IFA=1THENA=28710
530 IFA=2THENA=28714
540 IFA=3THENA=28718
550 IFA=4THENA=28722
560 IFA=5THENA=28726
570 IFA<28710THEN500:IFA>28762THEN500
600 REM DOWN POSITION
610 PRINT@2," ENTER DOWN POSITION";:INPUTB
615 PRINT@2,"                              "
620 IFB=1THENB=64
630 IFB=2THENB=128
640 IFB=3THENB=192
650 IFB=4THENB=256
660 IFB=5THENB=320
670 IFB<64THEN600:IFB>320THEN600
700 REM POITION CHECK AND MOVE
710 C=A+B:D=C:F=E
720 IFC=E-4THEN780
730 IFC=E+4THEN780
740 IFC=E+64THEN780
750 IFC=E-64THEN780
760 PRINT@2,"ILLEGAL MOVE, TRY AGAIN":FORX=1TO1000:NEXT
770 PRINT@2,"                              ":GOTO500
780 G=PEEK(C):H=PEEK(F)
790 POKEE,G:POKED,H:E=D
800 I=I+1:PRINT@467,I
810 GOTO500
900 REM INSTRUCTIONS
910 CLS:PRINT:PRINT" THE AIM OF THE GAME IS TO "
915 PRINT" REARRANGE THE LETTERS IN"
920 PRINT" ALPHABETIC ORDER FROM TOP TO "
925 PRINT" BOTTOM IN THE LEAST POSSIBLE"
930 PRINT" NUMBER OF MOVES BY "
935 PRINT" INTERCHANGING LETTERS WITH THE";
940 PRINT" BLANK SQUARE"
```

```
950 PRINT"  IT IS ONLY POSSIBLE TO MOVE "
960 PRINT"  THE LETTER DIRECTLY ABOVE,"
970 PRINT"  BELOW OR BESIDE THE VACANT"
980 PRINT"  SQUARE."
990 PRINT:PRINT"  PRESS SPACE KEY TO CONTINUE"
1000 A$=INKEY$:A$=INKEY$
1010 IFA$=" "GOTO20
1020 GOTO1000
```

HIGH RESOLUTION GRAPHICS PLOTTING 1

THREE DIMENSIONAL PLOTTING

This is a simple program for evolving three dimensional representations of trigonometrical functions on the VZ.

The following notes explain the main points in the program:

LINE 100 Sets the high resolution graphics mode.
LINE 110-115 V and H set the Veritcal and Horizontal screen dimensions of the plot.
LINE 170 Assumes that the point with co-ordinates 0,0 is at the top left hand corner of the screen.
LINE 175 Sets the points on the screen.
SET is equivalent to PLOT and HPLOT on other computer systems.
LINE 155 Is the nucleus of the plot, this trigonometrical formula is the function to be plotted.

Variations are found in lines 255, 355, 455, etc, the program plotting a series of seven designs, pausing between plots. Pressing any key at the end of each plot clears the screen and then commences drawing the next design.

```
5 CLS:SOUND25,6
10 PRINT@41," 3-DIMENSION "
20 PRINT@102,"[EVOLVING THREE-DIMENSION]"
30 PRINT:PRINT@162,"THIS IS A SIMPLE PROGRAM FOR"
40 PRINT@194,"EVOLVING THREE-DIMENSIONAL"
50 PRINT@226,"REPRESENTATIONS OF TRIG-"
60 PRINT@258,"ONOMETRICAL FUNCTIONS."
70 PRINT@448,"PRESS ANY KEY TO START PLOTTING"
90 IFINKEY$=""THEN90
91 IFINKEY$=""THEN90
100 MODE(1)
105 COLOR,0
107 COLOR2
110 H=117
115 V=63
125 X1=H/2:X2=X1*X1:Y1=V/2:Y2=V/4
130 FORX=0TOX1
135 X4=X*X:M=-Y1
140 A=SQR(X2-X4)
145 FORI=-A TO A STEP V/10
150 R=SQR(X4+I*I)/X1
155 F=(R-1)*SIN(R*12)
160 Y=I/5+F*Y2
165 IFY<=M THEN180
170 M=Y:Y=Y1-Y
```

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```
175 SET (X1-X,Y):SET (X1+X,Y)
180 NEXTI:NEXTX
190 IFINKEY$=""THEN190
195 IFINKEY$=""THEN190
200 MODE(1)
205 COLOR,0
207 COLOR3
210 H=117
215 V=63
225 X1=H/2:X2=X1*X1:Y1=V/2:Y2=V/4
230 FORX=0TOX1
235 X4=X*X:M=-Y1
240 A=SQR(X2-X4)
245 FORI=-A TO A STEP V/10
250 R=SQR(X4+I*I)/X1
255 F=COS(9*R)*(1-R)*2
260 Y=I/5+F*Y2
265 IFY<=M THEN280
270 M=Y:Y=Y1-Y
275 SET (X1-X,Y):SET (X1+X,Y)
280 NEXTI:NEXTX
290 IFINKEY$=""THEN290
295 IFINKEY$=""THEN290
300 MODE(1)
305 COLOR,1
307 COLOR7
310 H=127
315 V=63
325 X1=H/2:X2=X1*X1:Y1=V/2:Y2=V/4
330 FORX=0TOX1
335 X4=X*X:M=-Y1
340 A=SQR(X2-X4)
345 FORI=-A TO A STEP V/20
350 R=SQR(X4+I*I)/X1
355 F=COS(20*R)*(1-R)
360 Y=I/5+F*Y2
365 IFY<=M THEN380
370 M=Y:Y=Y1-Y
375 SET (X1-X,Y):SET (X1+X,Y)
380 NEXTI:NEXTX
390 IFINKEY$=""THEN390
395 IFINKEY$=""THEN390
400 MODE(1)
405 COLOR,0
407 COLOR4
410 H=127
415 V=63
425 X1=H/2:X2=X1*X1:Y1=V/2:Y2=V/4
430 FORX=0TOX1
435 X4=X*X:M=-Y1
440 A=SQR(X2-X4)
445 FORI=-A TO A STEP V/20
450 R=SQR(X4+I*I)/X1
455 F=ATN(20*R)*(1-R)
460 Y=I/5+F*Y2
465 IFY<=M THEN480
470 M=Y:Y=Y1-Y
475 SET (X1-X,Y):SET (X1+X,Y)
480 NEXTI:NEXTX
490 IFINKEY$=""THEN490
495 IFINKEY$=""THEN490
```

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```
500 MODE(1)
505 COLOR,1
507 COLOR8
510 H=127
515 V=63
525 X1=H/2:X2=X1*X1:Y1=V/2:Y2=V/4
530 FORX=0TOX1
535 X4=X*X:M=-Y1
540 A=SQR(X2-X4)
545 FORI=-A TO A STEP V/20
550 R=SQR(X4+I*I)/X1
555 F=LOG(25*R)*(1-R)
560 Y=I/5+F*Y2
565 IFY<=M THEN580
570 M=Y:Y=Y1-Y
575 SET (X1-X,Y):SET (X1+X,Y)
580 NEXTI:NEXTX
590 IFINKEY$=""THEN590
595 IFINKEY$=""THEN590
600 MODE(1)
605 COLOR,0
607 COLOR3
610 H=127
615 V=63
625 X1=H/2:X2=X1*X1:Y1=V/2:Y2=V/4
630 FORX=0TOX1
635 X4=X*X:M=-Y1
640 A=SQR(X2-X4)
645 FORI=-A TO A STEP V/15
650 R=SQR(X4+I*I)/X1
655 F=SGN(15*R)*(1-R)
660 Y=I/5+F*Y2
665 IFY<=M THEN680
670 M=Y:Y=Y1-Y
675 SET (X1-X,Y):SET (X1+X,Y)
680 NEXTI:NEXTX
690 IFINKEY$=""THEN690
695 IFINKEY$=""THEN690
700 MODE(1)
705 COLOR,1
707 COLOR7
710 H=127
715 V=63
725 X1=H/2:X2=X1*X1:Y1=V/2:Y2=V/4
730 FORX=0TOX1
735 X4=X*X:M=-Y1
740 A=SQR(X2-X4)
745 FORI=-A TO A STEP V/15
750 R=SQR(X4+I*I)/X1
755 F=(1-R)
760 Y=I/5+F*Y2
765 IFY<=M THEN780
770 M=Y:Y=Y1-Y
775 SET (X1-X,Y):SET (X1+X,Y)
780 NEXTI:NEXTX
790 IFINKEY$=""THEN790
795 IFINKEY$=""THEN790
800 GOTO100
```